MASK DEFECT ANALYSIS SYSTEM

Abstract of the Disclosure

An automated system for analyzing mask defects in a semiconductor manufacturing process is presented. This system combines results from an inspection tool and design layout data from a design data repository corresponding to each mask layer being inspected with a computer program and a predetermined rule set to determine when a defect on a given mask layer has occurred. Mask inspection results include the presence, location and type (clear or opaque) of defects. Ultimately, a determination is made as to whether to scrap, repair or accept a given mask based on whether the defect would be likely to cause product failure. Application of the defect inspection data to the design layout data for each mask layer being inspected prevents otherwise acceptable wafer masks from being scrapped when the identified defects are not in critical areas of the mask.

Figures